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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,801	02/22/2002	Joel R. Williams	DISKSYS	1755

7590 10/20/2005

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EXAMINER	
VAUGHN JR, WILLIAM C	
ART UNIT	**PAPER NUMBER**
2143	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/081,801	WILLIAMS, JOEL R.	
	Examiner	Art Unit	
	William C. Vaughn, Jr.	2143	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This Action is in regards to the Amendment and Response received on 07 July 2005.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-2, 8-9 and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd (US 6,025,989) in view of Obara, U.S. Patent No. 6,772,365.

4. Regarding claim 1, Ayd discloses the invention substantially as claimed. Ayd discloses a system comprising: a disk drive (column 3, lines 1-3), wherein a disk drive including a disk drive housing having at least one electrical connector disposed therein [see Ayd, Col. 2, lines 63-67 and Col. 3, lines 1-3], wherein the CPU subsystem is identified as a "logic chassis". Ayd teaches the CPU subsystem and conforming approximately to the height and width said disk drive (Fig. 1, Col. 3, lines 17-24), wherein element 14 is the disk drive and element 12 is the CPU subsystem. Ayd teaches wherein, when power is supplied to said CPU subsystem, said CPU subsystem supplies power and/or data to said disk drive through said electrical connectors without external wires or cables (Fig. 1), wherein elements 38, 39, 42 and 43 are connectors between the disk drive and the CPU subsystem (see also column 3 lines 17-25).

5. Ayd does not specifically enumerate a system for providing a server, however, Ayd does teach a system for providing a node assembly for a rack mounted multiprocessor computer

(column 1 lines 44-46). The node assembly of Ayd is a computer as it contains a processor, memory, input/output functionality and storage and further the node assembly is a pad of a multiprocessor computer (column 1 lines 44-45, Fig. 4). It would have been obvious to one of ordinary skill in the art at the time of applicant's invention for the invention of Ayd to act as a system for providing a server, as Ayd's invention is a computer and further is a modular node assembly for a rack mounted multiprocessor computer which is known in the ad as a typical hardware configuration for a server (see reference not relied' upon Newton's Telecom Dictionary p 757). However, Ayd does not explicitly discloses having a housing and at least one electrical connector disposed therein and mated to said disk drive electrical connector.

6. In the same field of endeavor, Obara discloses (e.g., data backup method of using storage area network). Obara discloses having a housing and at least one electrical connector disposed therein and mated to said disk drive electrical connector [see Obara, Col. 11, lines 8-25].

7. Accordingly, it would have been obvious to one of ordinary skill in the networking art at the time the invention was made to have incorporated Obara's teachings of data backup method of using storage area network with the teachings of Ayd for the purposes of providing for a more efficient way of connecting a processor to a disk drive (i.e., RAID system).

8. Claim 8 is a method claim that corresponds to the system taught by the applicant in claim 1. Claim 8 is therefore rejected on the same basis as claim 1 as all of the Page 4 elements of claim 8 have been addressed in the rejection of claim 1 above.

9. Claim 15 is an apparatus claim to a server that corresponds to the system taught by the applicant in claim 1. Claim 15 is therefore rejected on the same basis as claim 1 as all of the elements of claim 15 have been addressed in the rejection of claim 1 above.

10. Regarding claims 2, 9 and 16, Ayd discloses an electrical disk bus connection from the CPU subsystem to at least one additional disk drive (column 3 lines 1-3). Ayd teaches the CPU subsystem, which is identified as the logic chassis, as being coupled to a pair of disk drives.

Claim Rejections - 35 USC § 103

11. Claims 3-5, 10-12 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd-Obara as applied to claims 2, 9 and 16 above, and further in view of Savage ("Disk Arrays Challenge DASD" Savage, J.A.).

12. Regarding claims 3, 10 and 17, Ayd discloses the plurality of disks (column 3 lines 1-3), however Ayd does not specifically enumerate said disks are arranged to operate as a RAID disk array. Savage teaches a typical RAID array consisting of a plurality of disk drives (4th paragraph) It would have been obvious to arrange the plurality of disk of the invention of Ayd to operate as a RAID disk array as described by Savage in order to gain the advantages of greater capacity, speed and fault tolerance as taught by Savage.

13. Regarding claims 4-5, 11-12 and 18, Ayd discloses at least two node assemblies Page 5 in a single enclosure (column 3 lines 45-50). As noted in claims 1, 8 and 15 above, it would have been obvious for the node assemblies to be servers. It would have been obvious for the grouping of the at least two nodes of Ayd's invention to be a server farm as it is known in the art that a server farm is merely a collection of a group of computers providing network services (see reference not relied upon Webster's New WorldTM Computer Dictionary Ninth Edition p 331 definition of "server farm).

Claim Rejections - 35 USC § 103

14. Claims 6-7, 13-14 and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayd-Obara as applied to claims 1, 8 and 15 above, and further in view of Mazingo (Internet server Load balancing" Mazingo, Sue).

15. Regarding claims 6, 13 and 19, Ayd does not specifically enumerate at least one server system providing redundancy for at least one other server system. Mazingo teaches a plurality of servers in a server farm providing the same data content or application service (3rd paragraph). It would have been obvious to combine the redundancy as taught by Mazingo with the server farm of Ayd in order to gain the advantage of fault tolerance and intelligent load balancing as taught by Savage.

16. Regarding claims 7, 14 and 20, Mazingo discloses two or more server systems are used to share a server load (2nd paragraph).

Conclusion

17. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

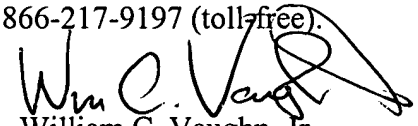
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Vaughn, Jr. whose telephone number is (571) 272-3922. The examiner can normally be reached on 8:00-6:00, 1st and 2nd Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William C. Vaughn, Jr.
Primary Examiner
Art Unit 2143
13 July 2005

WCV